



Matanuska-Susitna Valley / Kenai Peninsula / Anchorage Bowl

Northern Pike

The impact of illegally-introduced northern pike

Northern pike are an important fish in their native Interior and Western Alaska waters. In their home ranges, they have established a balance with other native species.

But ... northern pike are **not** native to Southcentral Alaska. They have been illegally released into lakes and streams on the Kenai Peninsula, in the Anchorage area, and in the Matanuska-Susitna Valley. When illegally stocked, pike change the entire balance of species — the “species complex” — in their new environment.

Illegally-stocked northern pike have especially devastating impacts on silver salmon, rainbow trout and other game fish that share the same habitat — weedy, slow-moving, clearwater streams with interconnecting shallow lakes and ponds.

Systems like these have no deep waters in which juvenile salmon and trout can escape hungry pike.

Illegal stocking

Illegal stocking is becoming more and more problematic, not only in Alaska, but also in other states. “Exotic”



An ADF&G biologist holds a Bristol Bay northern pike that bit off more than it could chew. Pike are an important fish in Interior Alaska, but have been illegally introduced into Southcentral waterways.

species are taking their toll on both native fish, wildlife, and plant populations, not to mention taxpayer dollars in state and federal budgets.

A recent report to Congress estimates the cost of exotic species to state and federal natural resource managers to be over \$100 billion per year.

Although many invasions of exotic species happen by accident, like the spread of zebra mussels in the Great Lakes, our recent northern pike invasions were caused by the actions of misguided people.

Fish transport and stocking laws

At the time of statehood, Alaska adopted laws affecting the introduction of non-native species. Alaska now has some of the toughest laws in the United States governing the movement of fish and wildlife. Even the Department of Fish and Game must obtain permits before moving and stocking fish.

✓ **IT IS ILLEGAL** to move or transport any live fish from the waters of Alaska without a permit from the Department of Fish and Game. You are also not

Inside --

How to make boneless pike fillets •

• recipes • a few suggested pike lakes to try • the lakes where you can ice fish with five lines for pike.

allowed to introduce any live fish into the waters of Alaska without a permit from the Department of Fish and Game. These actions are against the law, and are punishable by fines of up to \$5,000 and/or a year in prison.

- ✓ **No live fish** (other than tropical fish for aquariums) are permitted to enter Alaska.
- ✓ **No live fish** are allowed to be used as bait in fresh waters.

Illegal stocking of pike causes severe harm to your fisheries!

The illegal introduction of northern pike in Southcentral waters continues to cause **severe harm** to sport fish and wildlife populations.

Juvenile king, silver, and red salmon spend one to three years in fresh water before migrating to the ocean, and it is during this time that they are vulnerable to pike predation.

Report Illegal Stocking
Alaska Fish & Wildlife
Safeguard
1-800-478-3377
Alaska State Troopers
(907) 428-7200

ADF&G estimates that as many as 30,000 fewer adult salmon per year return to the Susitna drainage due to the illegal introduction of northern pike.

In addition, it is estimated that thousands of rainbow trout and Arctic grayling have also been wiped out because of the illegal introduction of pike.

When pike invade a new lake system, food is plentiful. The pike grow quickly and reproduce at a young age. These pike produce lots of offspring, which, in turn, grow quickly.

However, by the time this second generation reproduces, most Southcentral lakes have reached their critical biomass stage. Primary food sources have been wiped out, and the third generation has a hard time finding enough food.

Small pike begin to eat other small pike, and no fish

grow very large. After 5 to 10 years, the lake contains nothing but 10- to 20-inch pike that anglers don't pursue because the fish are perceived as too small to process for cooking.

Once the initial biomass is consumed by pike, native fish production is essentially lost, unless the pike can be removed.

Many Susitna River basin lakes, such as Trapper Lake, Alexander Lake, and Red Shirt Lake, once held healthy salmon, rainbow trout, and Arctic grayling populations, but now contain only northern pike.

Pike densities remain high in these systems, and it is unlikely that salmon, trout or grayling will ever become reestablished.

Eliminating rainbow trout and replacing it with "hammer handle" northern pike is unacceptable to most sport anglers in Alaska.

One Anchorage lake that now has an illegally-introduced population of northern pike, Cheney Lake, is no longer stocked with rainbow trout. Other stocked waters may be at jeopardy.

How you can help

These are your sport and commercial fisheries at risk! Northern pike are here to stay, but they don't have to spread beyond their current waters. You can help control their spread.

Catch and keep pike

Your fishing efforts can directly reduce the impact pike have on both native and stocked fish. There is evidence that intensive fishing can help control pike populations. In some lakes, anglers have caught 80-90% of pike over 12 inches.

We encourage anglers to catch and keep as many pike as possible, keeping in mind that Alaska's laws are strict about wasting sport-caught fish. If you can't eat all the pike you catch, clean them and donate them to an appropriate charity.

Local food banks or homeless shelters, for example, often welcome such donations.



*These opportunities
funded in part by Federal
Aid in Sport Fish and
Wildlife Restoration.*

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If you believe you have been discriminated against in any program, activity, or facility, or if you desire further information please write to ADF&G, P.O. Box 25526, Juneau, AK 99802-5526; U.S. Fish and Wildlife Service, 4040 N. Fairfax Drive, Suite 300 Webb, Arlington, VA 22203; or O.E.O., U.S. Department of the Interior, Washington DC 20240.

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Feeding habits

Northern pike are known to travel extensively in search of food. They have voracious appetites. Their feeding technique has often been described as similar to shark or barracuda. They will attempt to eat prey up to (and sometimes over) one-half their size.

The pike's favorite food is usually other fish, including rainbow trout, juvenile salmon, and other pike. Studies in the Susitna River drainage show that pike favor salmon, trout, and grayling. They will also eat insects, rodents, or even juvenile ducks, muskrats, and beaver.

Size and growth

When northern pike are introduced into a new system they grow very fast because there is plenty of available food. As these pike decimate their food sources, growth slows and fewer large pike are available.

Anglers today are having to travel further and fish longer to catch large pike.

In the Susitna drainage system, anglers have harvested pike in the 20 lb. (39 - 43 inches) category, with occasional pike caught in the 30 lb. category (47-52 inches). In February 1997, a pike 54 inches long, and just a few ounces shy of the state record, was caught in Red Shirt Lake.

Generally speaking, however, the size of harvested northern pike is decreasing.

The Nancy Lake canoe system, which includes more than 20 lakes, is one of the systems where the size of harvested pike has declined. In examining stomach contents from over 100 northern pike captured in this system during August 1995, almost 95% contained only insects, indicating favorite food items (other fish) are scarce.

At one time this system produced fine catches of rainbow trout, grayling and salmon, but during two weeks of test netting in 1995 and 1996, only pike, a few suckers, sticklebacks, and one whitefish were caught.

Southcentral Alaska pike management

Some Southcentral anglers prefer that ADF&G manage northern pike for a trophy fishery. On the other hand, salmon and trout anglers, fearing that pike will further decimate trout and salmon resources, would like to see northern pike completely eliminated.

Northern pike create somewhat of a dilemma to fishery managers. How can we hold pike impacts on other species to an acceptable level while at the same time maintain a well-balanced pike fishery for those who enjoy it?

The threat to a productive pike fishery is that anglers



Pike have voracious appetites. This 14-inch pike was able to swallow a 5-6 inch rainbow trout. That would be like a 6-foot human swallowing a piece of food 2 feet long!

are primarily interested in keeping large fish. Anglers are encouraged to catch and retain as many pike 20 inches or smaller as possible to keep this fishery in balance and to control the impact on other fish.

Regulations

Regulations are different for each waterway you fish.

In Southcentral Alaska, northern pike often have more liberal limits and more gear types allowed. This is not the case in the rest of Alaska, so please read the regulation booklet before heading out to fish.

- ✓ Generally, there are **NO bag and possession limits** for northern pike in Southcentral Alaska waters.
- ✓ In most Southcentral waters, anglers may use spears, bow and arrow, bait, spinning gear, and fly-fishing gear.
- ✓ On a few special lakes in the Susitna/West Cook Inlet area and on the Kenai Peninsula, ice fishing anglers can use 5 lines when fishing for northerns.

Sport fishing for northerns

Northern pike are highly sought after by sport anglers because of their size and fierce fighting capabilities.

With the rise of the pike population, sport fishing for northerns has exploded in the rivers and lakes of the Southcentral Alaska area. In the last five years alone, inquiries to the Alaska Department of Fish & Game about northern pike fishing have increased tenfold.

Anglers are also becoming more aware of the area's pike population. During the last 10 years, angler catches have nearly tripled.

Where are the pike?

In Upper Cook Inlet drainages, northern pike were

Five lines through the ice lakes

Susitna and West Cook

Inlet

- Big No Luck Lake
- Donkey Lake
- Figure Eight Lake
- Flathorn Lake
- Hewitt Lake
- Kroto Lake
- Lockwood Lake
- Nancy Lake Recreation Area lakes, except Nancy Lake
- Neil Lake
- No Name Lake (near the cabin on the big bend of the Yentna River)
- Sucker Lake
- Threemile/Tukhallah Lake (Beluga area)
- Trail Lake
- Trapper Lake
- Upper and Lower Vern lakes
- Whiskey Lake

Kenai Peninsula

- Derks Lake
- Mackey lakes
- Sevena Lake
- Tote Road lakes
- Union Lake

not present before the 1950s. They were probably able to gain a stronghold in the Susitna River drainage through a series of illegal stockings.

However, in 1997 and 1998, the harvest of northern pike from the Matanuska-Susitna Valley area surpassed the harvest from the state's interior areas, which was previously the leader, and which is where the natural pike populations are found.

The Susitna River drainage covers tens of thousands of square miles, and contains a myriad of shallow lakes, sloughs, and clearwater tributaries, many of which are prime northern pike spawning and rearing habitats. Pike have been documented in more than 80 lakes and 45 streams in the Susitna River drainage.

There's a list of known and suspected pike waters on the back page. The ADF&G website has directions to some of the waters listed at www.sf.adfg.state.ak.us/region2/lakemaps/html/lakemap1.stm

Not much is known about the current northern pike population on the Kenai Peninsula. Soldotna Creek, including Sevena/Soldotna Lake, and Arc Lake (Mile 98.2 of the Sterling Hwy) reportedly have pike populations.

Pike are now established in the Moose River drainage. The Mackey Lakes also have pike, but public access to those lakes is difficult. A dead pike was found at the confluence of the Russian and Kenai rivers in 2000.

The most recent pike populations are showing up in Anchorage area streams and lakes. Although a few Anchorage lakes are reported to have had pike in them for more than a decade, some of the pike populations in Anchorage streams have only been recently discovered.

Fishing techniques

The highest catch rates and best fishing opportunities are in lakes and streams right after ice-out. Pike are spawning at this time, and they become more aggressive. Also, after spawning, pike are actively rebuilding their fat reserves, which were reduced by the long winter months as well as the rigors of spawning.

Pike tend to stay in weedy waters full of snags. When sending lures below the surface of the water, choose strong tackle and/or weedless hooks, so that you have a better chance of recovering your lure when you do get snagged up.

Top water lures are an option in heavily weeded areas, and are good producers.

Large, bright spinners, spoons, diving plugs, and surface plugs are all good things to have handy in your pike tackle box.

"Buzz baits," or spinner baits, are becoming more popular, as are top-water poppers. Try a fast retrieve and watch the action.

Herring suspended under a bobber also works well, if you wait to set the hook until you are sure the pike has swallowed the bait.

Whatever lure you choose, a steel leader ensures the sharp teeth of the pike will not bite through your line.

Ice fishers prefer fresh herring as bait (where bait is legal). A popular setup is a flasher fished above a baited hook, which is tied above a weight. Also try jigging with spoons or jigs in shallow waters. Decoys also work well when jigged.

Fly fishing anglers use their heavier salmon rods so that they can throw those bulky salmon smolt, frog, or mice imitations fished on 20-lb. or 40-lb. wire tippets. Either sinking line or floating lines, depending on the fly, are used.

Fly lines specially designed for pike fishing are made to throw those wind-resistant flies, and are usually weight-forward.

A few winter anglers like to spear pike through the ice, where spearing is allowed. A large hole is made in the ice, and a decoy dropped down. Eggshells in the hole help improve fish visibility. An ice-fishing shack is also usually used to cover the larger hole, for the safety of other anglers and snowmobilers.

For regulations about ice-fishing shacks, check with the land manager (State Parks, Borough, Municipality, for example) of the waterway you want to fish.

Spearing pike is a fun, productive method of harvest. Check your local tackle shop or dive shop for pole spears

and spear points, or search on-line. Spears must be operated by hand (spear guns are not legal).

Bowfishing is an exciting technique just catching on for northern pike anglers in the Southcentral area. The arrow must have a barbed tip, and be attached to the bow by a string. There are bows made especially for bowfishing, or you can purchase adapters for your current equipment.

Additional information

If you would like additional information concerning northern pike fishing or happen to observe northern pike in lakes and streams other than listed on the back page of this handout, please contact the ADF&G Sport Fish Information Center at (907) 267-2218.

In addition, there is a wealth of information, including weekly in-season fishery reports and emergency orders on the department's website. Point your browser to www.sf.adfg.state.ak.us/Region2/html/r2home.stm

Recipes

Most anglers tend to release small pike, thinking that there isn't enough meat to warrant the time spent cleaning them. This is not true! Small pike are actually better eating than the larger fish.

Although pike have a reputation for many small bones, actually, they do not have any more bones than other fish.

However, the ones they do have are forked (known as "Y" bones), giving them a multi-boned appearance. This series of bones runs the entire length of the fish and can be removed easily.

Pan Fried Northern Pike

- Up to 16 fresh or thawed frozen pike fillets or pieces
- 1/2 c. yellow cornmeal
- 1/2 c. all-purpose flour
- 1/2 tsp. dill weed or chili powder
- 1/2 tsp. salt
- 1/2 tsp. pepper
- 1 egg
- 2 tbsp. water
- 1-2 tbsp. margarine
- 1-2 tbsp. vegetable oil

Mix ingredients into a batter. Dip fillets, then fry over medium heat until golden brown.

Easy Simmered Pike

Good over egg noodles!

- 3 lbs skinless pike cut into bite-sized chunks
- 1 whole yellow or white onion, peeled and cut into thick slices
- 1-1/2 tbsps. salt
- 20 peppercorns
- 2 tbsps. vinegar
- 2 tbsps. sugar
- 2 bay leaves
- Melted butter

Put the onion slices, salt, peppercorns, vinegar, sugar, and bay leaves in 3 quarts of water and bring to a boil. Lower heat, and simmer for 15 minutes.

Add the fish chunks, bring the mixture to a boil, and cook 10 minutes or until done. Remove the fish with a slotted spoon; serve with melted butter over egg noodles or rice.

Pickled Pike

When pickling northern pike you only have to remove the backbone, so keep those small northern pike!

Cut fillets into approximately 2 inch squares. Make a brine of 1/2 cup non-iodized salt or pickling salt to 1 quart of water.

Place fillets in crock, glass jar, or other non-reactive container and cover completely with brine for 24 hours. After 24 hours, drain and discard brine.

Cover fillets with white vinegar for 12 hours. Drain off and discard vinegar.

Pack fish in sterilized jars and add raw onion slices in alternate layers. Add enough cooled pickling solution (below) to cover fish, then seal jars.

Keep refrigerated. Fish should be ready to eat in about two weeks.

Pickling Solution

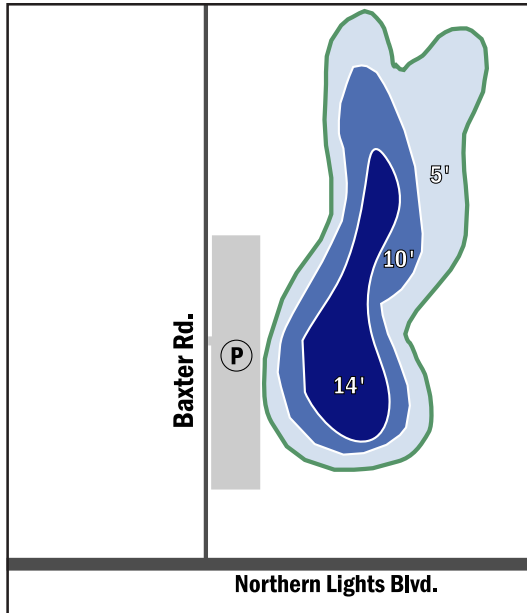
- 4 cups white vinegar
- 3 cups sugar
- 1 cup white wine or water
- 2 raw onions, thinly sliced
- 1/4 cup pickling spice

In large non-aluminum pan, mix sugar into white vinegar, and heat, but **do not boil**. Add white wine or water, onions, and pickling spice. Now bring to a boil, then cool.

Where to go pike fishing – a few suggestions

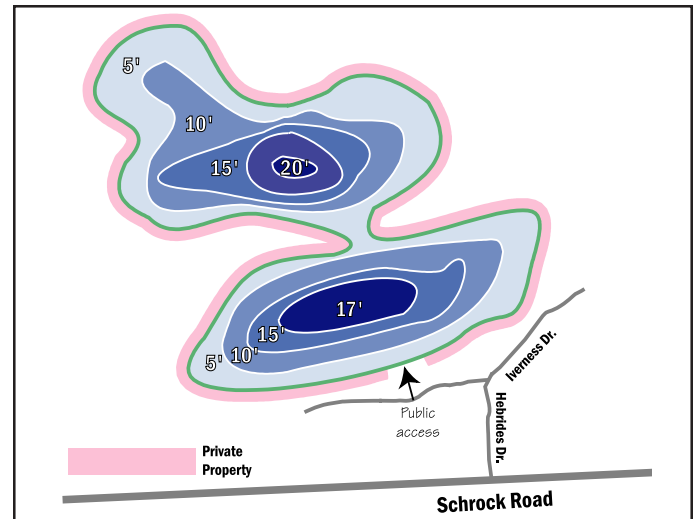
There are many other waters with known or suspected pike populations listed on the back page. The four lakes below consistently produce pike. More places to try can be found on our Pike Pages on the Region 2 home page at www.sf.adfg.state.ak.us/Region2/html/r2home.stm

Cheney Lake, Anchorage



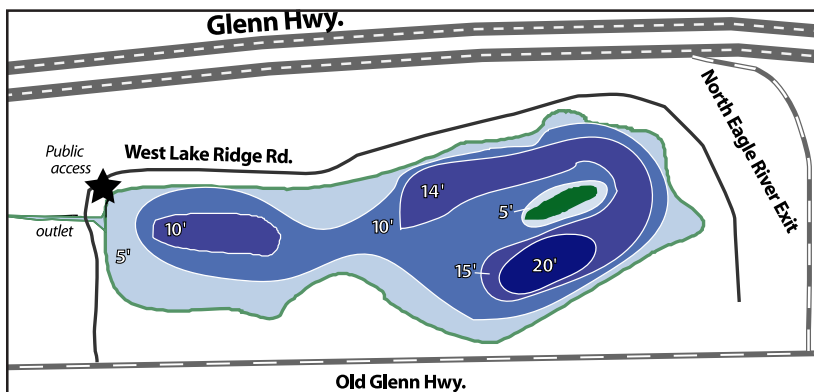
23.9 surface acres, shoreline length 1.0 mile, average depth 5.8'.
Public access: Cheney Lake Park, between Northern Lights Boulevard and Debarr Road, on Beaver/Baxter Place. A bike path follows the western shore.

Memory Lake, Wasilla



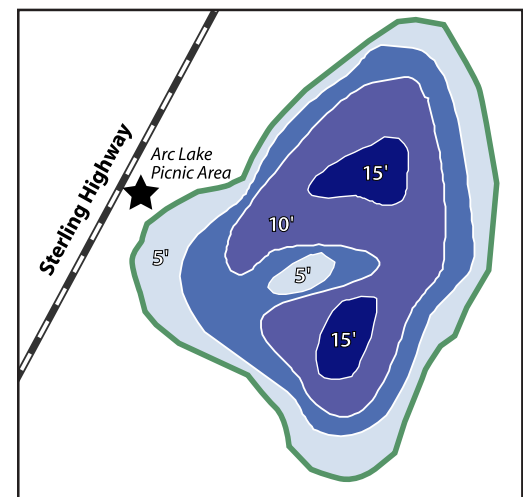
84 surface acres, shoreline length 2.2 miles, average depth 7.2'.
Public access: Mile 42.3 Parks Highway. North on Wasilla-Fishhook Rd 3 miles to 4-way stop. Left at stop 0.1 mile to Schrock Rd. Right on Schrock Rd. 1.0 miles to Hebrides Rd. Right on Hebrides Rd. 0.2 mile to Iverness Drive. Left on Iverness Drive 0.1 mile. Public access is on the right, with parking and undeveloped boat launch. Majority of shoreline is private property.

Lower Fire Lake, Eagle River



57.2 surface acres, shoreline length 1.5 miles, average depth 7.2'.
Public access: Mile 14 Glenn Hwy. North Eagle River exit. South .01 mile to Old Glenn Hwy. Left at stoplight on Old Glenn Hwy. 0.5 mile to West Lake Ridge Road. Left on West Lake Ridge Rd. 0.1 mile to unimproved access with limited parking. Majority of lake shoreline is private property.

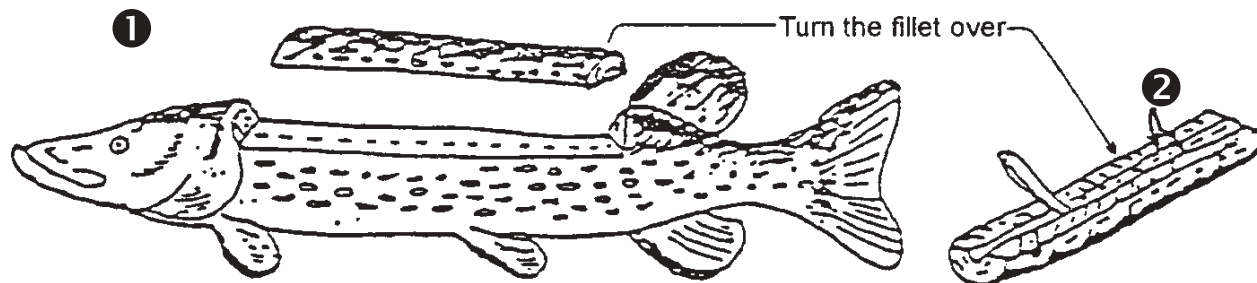
Arc Lake, Soldotna



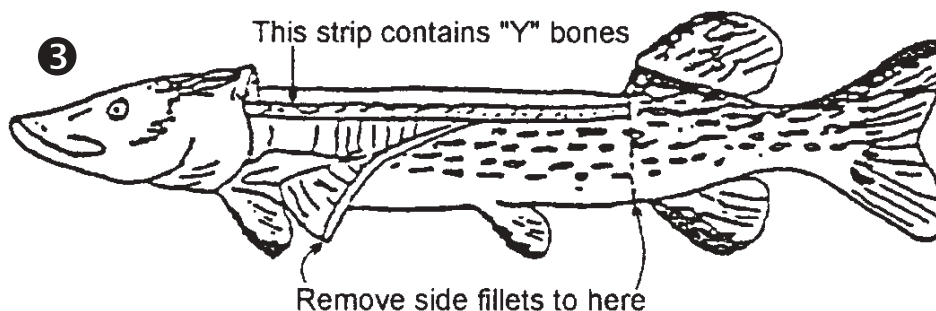
16 surface acres, shoreline length 0.8 miles, average depth 8.6'.
Public access: Mile 98.2 Sterling Highway, 2 miles south of Soldotna. Arc Lake Picnic Area, with picnic tables and sandy beach, on south side of highway.

Boneless northern pike filets

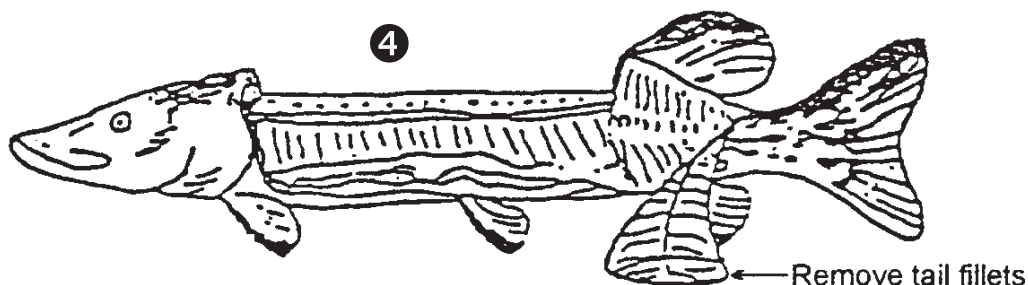
1. Make a cut around the head, cutting down to (but NOT through) backbone. Now turn the knife horizontal and cut toward the tail along the top.
2. There is a row of small bones down the center of this fillet. Remove them with a V-shaped lengthwise cut along the middle.



3. With the backbone exposed, a series of bones will be seen running parallel to it on either side. Make a cut down and slightly inward along the outer edge of these bones. Work down and over the ribs and remove the flank fillet. Repeat for other side.



4. Cut fillet free from each side of dorsal fin back to tail. There are no "Y" bones here.



5. Skin each fillet. You now have five bone-free fillets!

Drawings and narrative - Jerry Perkins

Confirmed and reported northern pike waters in the Matanuska-Susitna Valley, Anchorage Bowl, and Kenai Peninsula

Susitna Basin Lakes

Alexander Creek

1. Alexander Lake (*special regs*)
2. Sucker Lake
3. Trail Lake
4. Rabbit Lake

Lower Susitna

1. Figure 8 Lake
2. Flathorn Lake

Mid-Susitna

1. Ding Dong
2. Lady Slipper
3. Lockwood Lake
4. Unnamed
5. Unnamed
6. Unnamed
8. Vern Lake
9. Witsol Lake
10. Witsoe Lake

Yentna River

1. Bulchitna Lake
2. Cabin Lake (Big Bend)
3. Chelatna Lake ♦
4. Dog Leg
5. Donkey Lake
6. Fish Creek Lake 1
7. Fish Creek Lake 2
8. Fish Creek Lake 3
9. Fish Creek Lake 4
10. Hewitt Lake ♦
11. No Name (Big Bend)
12. Pear Lake (Upper Skwentna)
13. Stickleback Lake
14. Whiskey Lake

Skwentna River

1. Bob Lake (Shell Creek drainage)
2. Eight Mile Lake
3. No Name (east of Shell Lake)
4. No Name (Herk Strip)
5. One Stone Lake
6. Seven Mile Lake
7. Shell Lake

Deshka River

1. Amber Lake
2. Kroto Lake
3. Neil Lake
4. No Name Lake
5. No Name (1mi SW Parker Lake)
6. No Name (2mi SW Parker Lake)
7. No Name (Moose Creek)
8. No Name (Moose Creek)
9. Parker Lake
10. Rocky Lake
11. Trapper Lake ♦

Upper Susitna

1. Caswell Lake*
2. Fish Lake*
3. Kashwitna Lake ♦*
4. Sawmill Lake*
5. Swan Lake

Nancy Lake Area

1. Ardaw Lake
2. Bains Pond #1
3. Bains Pond #2
4. Bains Pond #3
5. Big No Luck Lake
6. Candle Stick Lake
7. Char Lake
8. Chicken Lake
9. Cow Lake
10. Echo Pond #1
11. Echo Pond #2
12. Echo Pond #3
13. Frazer Lake
14. James Lake
15. Little Chicken
16. Little Frazer Lake
17. Little No Luck Lake
18. Lynx Lake
19. Milo Lake
20. North Rolly Lake
21. Owl Lake
22. Phoebe Lake
23. Red Shirt Lake ♦
24. South Rolly Lake ♦
25. Tanaina Lake ♦

Susitna Tributaries

1. Alexander Creek
2. Anderson Creek*
3. Birch Creek*
4. Bottle Creek
5. Caswell Creek
6. Chulitna River*
7. Deshka River
8. Donkey Creek
9. Eightmile Creek
10. Fish Creek (Flathorn)
11. Fish Creek (Kroto)
12. Fish Lake Creek
13. Hewitt Creek
14. Indian (Chulitna)*
15. Indian Creek (Yentna)
16. Johnson Creek
17. Kutna Creek (Yentna)
18. Lake Creek
19. Montana Creek
20. Moose Creek
21. Otter Creek
22. Rabideux Creek
23. Rolly Creek
24. Shell Creek
25. Skwentna River
26. Sucker Creek
27. Sunshine Creek*
28. Talachulitna Creek*
29. Trappers Creek
30. Trapper (Talkeetna)*
31. Tokositna
32. Unnamed (Lower Susitna)
33. Wiggel Creek*
34. Witsoe Creek
35. Yentna River

Knik Arm Drainages

1. Fire Creek
2. Fish Creek (Big Lake)
3. Jim Lake ♦
4. Knik Lake ♦
5. Little Susitna River
6. Meadow Creek (Big Lake)
7. Mink Creek
8. Swan Lake*

West Cook Inlet

1. Chuit River
2. Chuitbunga Lake
3. Nikolai River
4. Threemile/Tukhallah Creek
5. Threemile/Tukhallah Lake

Matanuska-Susitna Valley Lakes

1. Crystal Lake ♦
2. Finger Lake ♦
3. Horseshoe Lake (Little Susitna) ♦
4. Long Lake (Willow area) ♦
5. Memory Lake ♦
6. Rainbow Lake ♦*
7. Wasilla Lake ♦

Anchorage Lakes

1. Campbell Creek
2. Cheney Lake ♦
3. Gwen Lake ♦
4. Lower Fire Lake ♦
5. Otter Lake ♦
6. Sand Lake ♦
7. Upper Fire Lake

Kenai Peninsula Lakes

1. Arc Lake ♦
2. Denise Lake
3. Derks Lake
4. Egumen Lake (Moose River)
5. Enceleweski Lake ♦*
6. Mackey lakes, East and West
7. Moose River
8. Peterson Lake*
9. Soldotna/Sevna Lake
10. Stormy Lake
11. Tree Lake
12. Union Lake
13. Unnamed Lake #1 (Tote Rd.)*
14. Unnamed Lake #2 (Tote Rd)*

* Reported but not confirmed northern pike populations

♦ Lake information posted on ADF&G website

Not all waterways have public access

For information about camping, accommodations, fishing guides, and other visitor services, contact the Alaska Division of Tourism at
P.O. Box 110809, Juneau, Alaska 99811 (907) 465-2012 Fax (907) 465-3767 www.dced.state.ak.us/tourism/



Recreational Fishing Series produced by

Southcentral Region

Alaska Department of Fish and Game
Division of Sport Fish

333 Raspberry Road
Anchorage, Alaska 99518

www.state.ak.us/adfg Click on Sport Fish, then Southcentral Region

Sport Fish Information Center

(907) 267-2218

M-F 8am - 5 pm

Except on state & federal holidays